

## Thin film magnetic memory device including memory cells having a magnetic tunnel junction

**Patent number:** DE10130829  
**Publication date:** 2002-07-18  
**Inventor:** HIDAKA HIDETO (JP)  
**Applicant:** MITSUBISHI ELECTRIC CORP (JP)  
**Classification:**  
- international: G11C11/14  
- european: G11C11/15; G11C11/16  
**Application number:** DE20011030829 20010627  
**Priority number(s):** JP20000393213 20001225

Also published as:



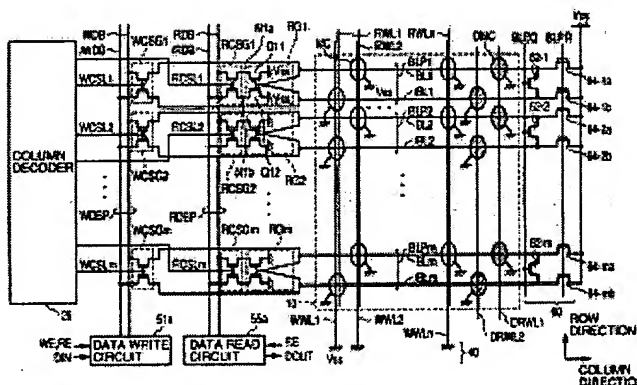
US6349054 (B1)  
JP2002197852 (A)

[Report a data error here](#)

Abstract not available for DE10130829

Abstract of corresponding document: **US6349054**

In the data read operation, a memory cell and a dummy memory cell are respectively coupled to two bit lines of a selected bit line pair, and a data read current is supplied thereto. In the selected memory cell column, a read gate drives the respective voltages on a read data bus pair, according to the respective voltages on the bit lines. A data read circuit amplifies the voltage difference between the read data buses so as to output read data. The use of the read gate enables the read data buses to be disconnected from a data read current path. As a result, respective voltage changes on the bit lines are rapidly produced, whereby the data read speed can be increased.



Data supplied from the esp@cenet database - Worldwide

**BEST AVAILABLE COPY**